1 9626/12/M/J/22/Q7

The average (mean) of a set of numbers can be found by adding the numbers together and dividing the resulting total by how many numbers there are in the set.

Write an algorithm in pseudocode to enter and find the average of a set of numbers using a REPEAT...UNTIL loop. Your algorithm must work for different sets of numbers.

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STUDENTS RESOURCE

CamScanner

2 9626/11/M/J/22/Q6

Many houses in cooler countries have central heating systems. In a central heating system, microprocessors are used to control the pump which sends water from the boiler to the individual heaters.

Complete the pseudocode algorithm to show the processing which takes place in this microprocessor-controlled central heating system. The algorithm must prevent attempting to switch the pump on when it is already on and attempting to switch the pump off when it is already off. You may assume `temperature` is the variable representing the actual temperature of the house and `preset` represents the required temperature of the house.

```
REPEAT
INPUT temperature
   IF temperature < preset
      THEN
```

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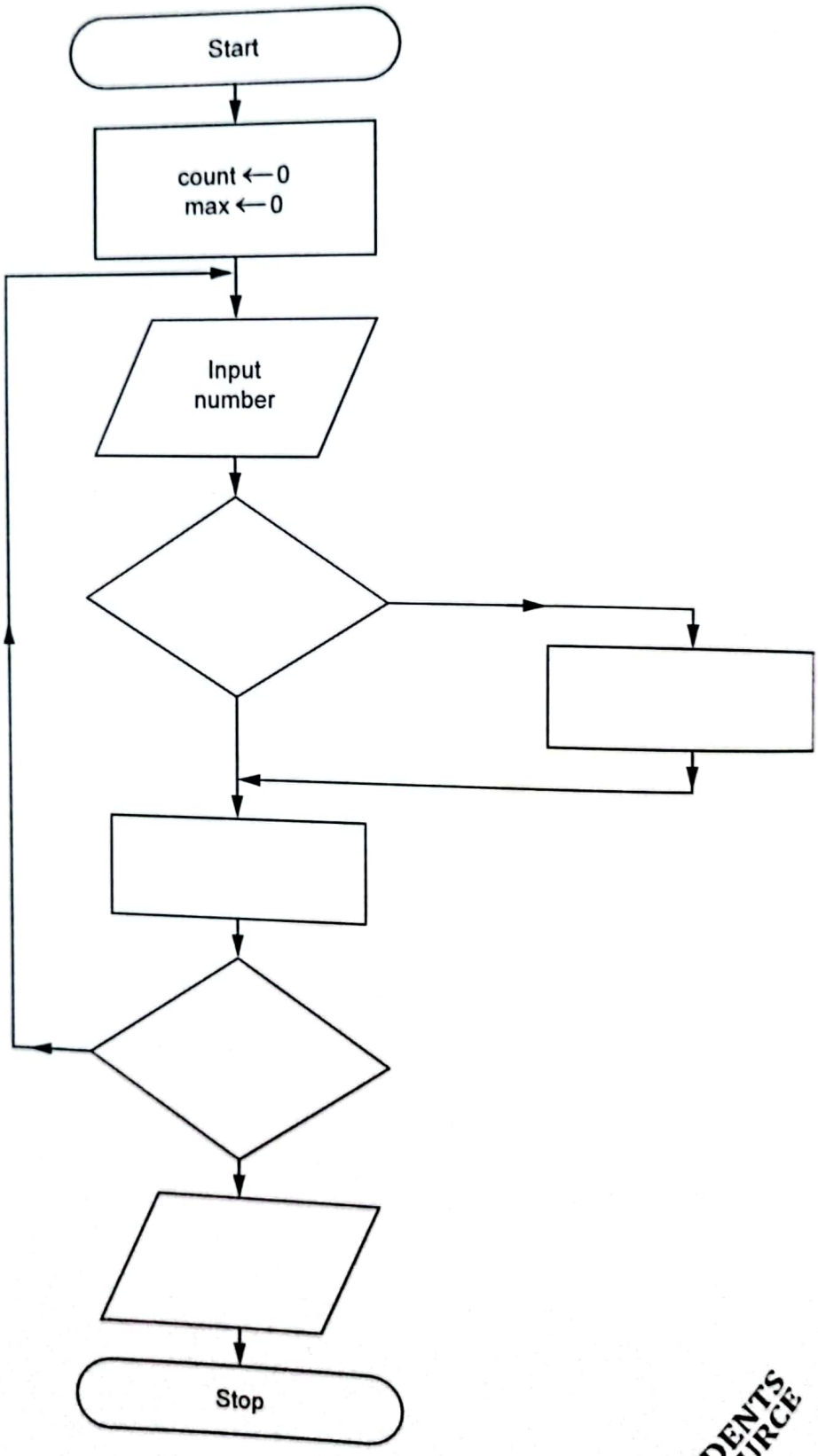
STUDENTS RESOURCE

CamScanner

3 9626/12/M/J/22/Q7

Josefine has started to draw a flowchart which inputs 10 numbers and outputs the largest value.

Complete the flowchart by filling in the empty boxes and by placing yes and no as appropriate in the diagram.

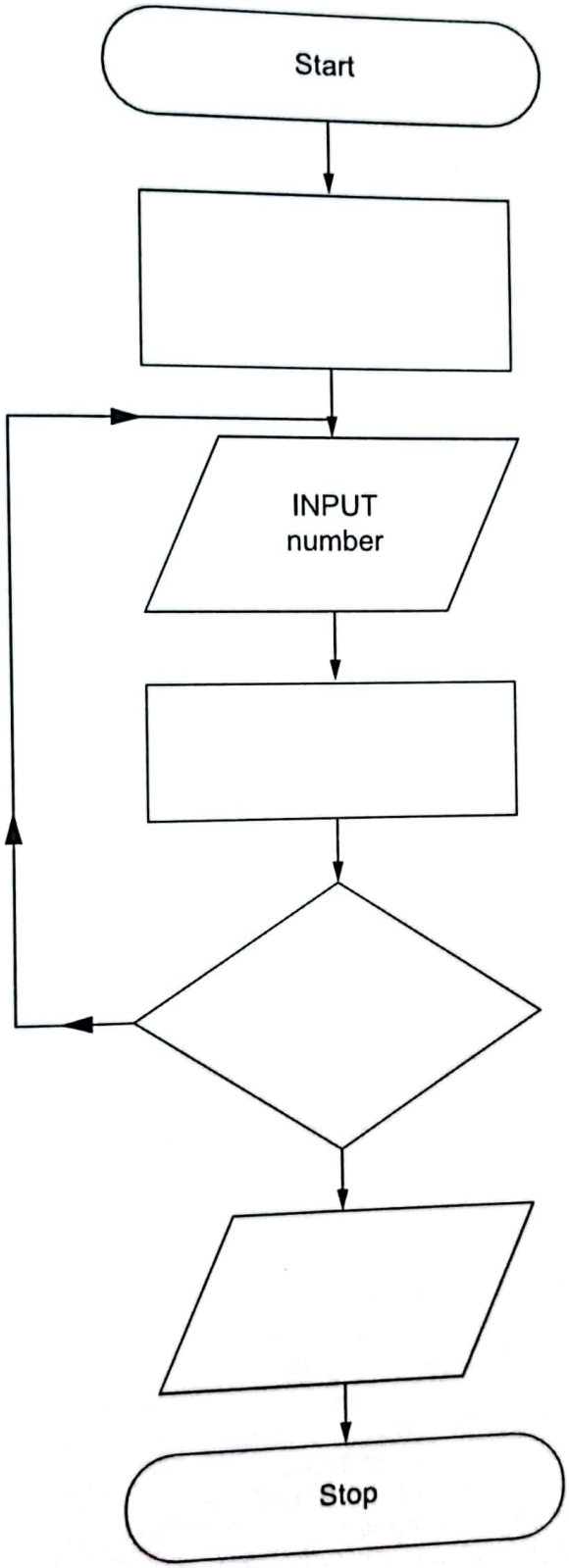


STUDENTS RESOURCE

CamScanner

4 9626/13/M/J/22/Q11

Complete the flowchart below to add up 6 numbers.
Use the variable *total* to store the sum of the numbers and the variable *count* to control the number of times the loop is repeated.



[7]

STUDENTS RESOURCE

CamScanner